

(3) Other provisions of this part notwithstanding, an operational fixed station operating on these frequencies shall not communicate with any station in the mobile service unless written authorization to do so has been obtained from the Commission.

(4) Persons who desire to operate stations on these frequencies should communicate with the Commission for instructions concerning the procedure to be followed in filing formal application.

(b) The following frequencies are available for wireless microphone operations to eligibles in this part, subject to the provisions of this paragraph:

FREQUENCIES (MHz)

169.445	170.245
171.045	171.845
169.505	170.305
171.105	171.905

(1) The emission bandwidth shall not exceed 54 kHz.

(2) The output power shall not exceed 50 milliwatts.

(3) The frequency stability of wireless microphones shall limit the total emission to within  $\pm 32.5$  kHz of the assigned frequency.

(4) Wireless microphone operations are unprotected from interference from other licensed operations in the band. If any interference from wireless microphone operation is received by any Government or non-Government operation, the wireless microphone must cease operation on the frequency involved. Applications are subject to Government coordination.

(Secs. 4(i) and 303(r), Communications Act of 1934, as amended, §§0.131 and 0.331 of the Commission's Rules and 5 U.S.C. 553 (b)(3)(B) and (d)(3))

[49 FR 20506, May 15, 1984]

**§90.266 Long distance communications on frequencies between 2 and 25 MHz.**

(a) The use of any particular frequency between 2 and 25 MHz is limited to those frequencies falling within the bands allocated to the fixed and land mobile services as indicated in §2.106 of the Commission's Rules and Regulations.

(b) Only in the following circumstances will authority be extended

to stations to operate on the frequencies between 2 and 25 MHz:

(1) To provide communications circuits to support operations which are highly important to the national interest and where other means of telecommunication are unavailable;

(2) To provide standby and/or backup communications circuits to regular domestic communications circuits which have been disrupted by disasters and/or emergencies.

(c) No protection is afforded to users of these frequencies from harmful interference caused by foreign operations.

(d) In the event that a complaint of harmful interference resulting from operation of these circuits is received from a foreign source, the offending circuit(s) must cease operation on the particular frequency concerned immediately upon notification by the Commission.

(e) In order to accommodate the situations described in paragraphs (c) and (d) of this section, the equipment shall be capable of transmitting and receiving on any frequency within the bands between 2 and 25 MHz and capable of immediate change among the frequencies, provided, however, that this requirement does not apply to equipment manufactured prior to August 15, 1983.

(f) Only 2K80J3E, 100HA1A, 100HA1B and those emission types listed in §90.237(g) are permitted.

(g) Applicants must fulfill eligibility requirements set out in §90.63(d)(1), §90.65(c)(1), §90.73(d)(1) or §90.81(d)(14) and shall submit communications plans pursuant to §90.129(o).

(h) Exercises or circuits tests which require use of these frequencies for more than seven hours per week cumulative are prohibited unless prior written approval is obtained from the Commission.

[48 FR 32996, July 20, 1983, as amended at 49 FR 48712, Dec. 14, 1984; 52 FR 29856, Aug. 12, 1987]

**§90.267 Assignment and use of frequencies in the 450–470 MHz band for low-power use.**

(a) Any regularly assignable frequency in the 450–470 MHz band listed in the tables in subparts B, C, D, and E

of this part, may be designated as a low-power channel in a defined geographic area by the frequency coordinator of the service in which the frequency is available. These channels are subject to the following conditions.

(1) For channels available in more than one radio service, concurrence for low-power designation must be obtained from coordinators of all such services.

(2) For channels available in more than one radio service, the frequency coordination requirements in §90.175 apply in all such services.

(3) Stations are limited to 2 watts output power and will be licensed as mobile, but may serve the functions of base, fixed, or mobile relay stations.

(4) Wide area operations will not be authorized. The area of normal day-to-day operations will be described in the application in terms of maximum distance from a geographical center (latitude and longitude).

(5) A hospital or health care institution holding a license to operate a radio station under this part may operate a medical radio telemetry device with an output power not to exceed 20 milliwatts without specific authorization from the Commission. All licensees operating under this authority must comply with the requirements and limitations set forth in this section.

(6) Each coordinator must maintain a list of all channels it designates for low-power use and the geographic areas where such channels are available. The coordinator must make this list available to the public upon request.

(7) Antennas of mobile stations used as fixed stations communicating with one or more associated stations located within 45 degrees of azimuth shall be directional and have a front to back ratio of at least 15 dB. Except as provided in this paragraph (b)(7), the height of the antenna used at any mobile station serving as a base, fixed or mobile relay station may not exceed 7 m. (20 ft) above the ground level.

(i) No limit shall be placed on the length or height above ground level of any commercially manufactured radiating transmission line when the transmission line is terminated in a non-radiating load and is routed at least 7 m.

(20 ft) interior to the edge of any structure or is routed below ground level.

(ii) Only sea-based stations, and central alarm stations operating on frequencies allocated for central station protection operations, may utilize antennas mounted not more than 7 m. (20 ft.) above a man-made supporting structure, including antenna structures.

(b) Frequencies separated by 3.125 kHz from regularly assignable frequencies in the 450–470 MHz band listed in the tables in subparts B, C, D, and E of this part, may be assigned in accordance with the following conditions:

(1) All stations will be licensed as mobiles but may serve the functions of base, fixed, or mobile relay stations. Stations are limited to 2 watts output power.

(2) The maximum authorized bandwidth for these frequencies is 6 kHz.

(3) All operations will be on a secondary basis to the primary operations (3.125 kHz removed) and shall be entitled to no protection from primary stations.

(4) The frequency coordination requirements in §90.175 apply for all channels available under this section. For channels which are between primary channels available to more than one service of this section, the frequency coordination requirements in §90.175 apply in all such services.

(5) Wide area operations will not be authorized. The area of normal day-to-day operations will be described in the application in terms of maximum distance from a geographical center (latitude and longitude).

(6) Applicants for stations under this section must specify base, mobile, or fixed operation, but are otherwise exempt from any limitation on the number of frequencies assignable contained elsewhere in part 90.

(7) Antennas of mobile stations used as fixed stations communicating with one or more associated stations located within 45 degrees of azimuth shall be directional and have a front to back ratio of at least 15 dB. Except as provided in this paragraph (b)(7), the height of the antenna used at any mobile station serving as a base, fixed or mobile relay station may not exceed 7 m. (20 ft) above the ground level.

(i) No limit shall be placed on the length or height above ground level of any commercially manufactured radiating transmission line when the transmission line is terminated in a non-radiating load and is routed at least 7 m. (20 ft.) interior to the edge of any structure or is routed below ground level.

(ii) Only sea-based stations, and central alarm stations operating on frequencies allocated for central station protection operations, may utilize antennas mounted not more than 7 m. (20 ft.) above a man-made supporting structure, including antenna structures.

(8) A hospital or health care institution holding a license to operate a radio station under this part may operate a medical radio telemetry device with an output power not to exceed 20 milliwatts without specific authorization from the Commission. All licensees operating under this authority must comply with the requirements and limitations set forth in this section.

(9) No assignment will be made on a frequency immediately adjacent to non-private radio service allocations.

(10) Frequencies from 462.7375 MHz to 462.9375 MHz and 464.9875 MHz to 465.0125 MHz are not available for authorization.

(11) Frequencies from 460.900 MHz to 461.01875 MHz and 465.900 MHz to 466.01875 MHz are available only for listed central station protection services and subject to § 90.75(c)(27) and (41).

[60 FR 37268, July 19, 1995, as amended at 61 FR 4235, Feb. 5, 1996]

**§ 90.269 Use of frequencies for self-powered vehicle detectors.**

(a) Frequencies bearing limitation (17) in the frequency table § 90.23(b) may be used for the operation of self-powered vehicle detectors by licensees of base/mobile stations in any of the Public Safety Radio Services in accordance with the following conditions:

(1) All stations are limited to 100 milliwatts carrier power and 20K00F7W, 20K00F7X, 20K00F8W, 20K00F8X, 20K00F9W or 20K00F9X emissions. The frequency deviation shall not exceed 5 kHz. No more than two 30 ms. pulses may be emitted for each vehicle sensed.

(2) The transmitters must be crystal controlled with a frequency tolerance of plus or minus .005% from  $-20^{\circ}$  to plus  $50^{\circ}$  C. They must be type accepted.

(3) The total length of the transmission line plus antenna may not exceed one-half wavelength and must be integral with the unit.

(4) All operation shall be on a secondary, non-interference basis.

(b) [Reserved]

[48 FR 54982, Dec. 8, 1983, as amended at 54 FR 38681, Sept. 20, 1989]

**§ 90.273 Availability and use of frequencies in the 421–430 MHz band.**

The frequency bands 422.1875–425.4875 MHz and 427.1875–429.9875 MHz are available for use in the Detroit, Michigan and Cleveland, Ohio areas. The bands 423.8125–425.4875 MHz and 428.8125–429.9875 MHz are available for use in the Buffalo, New York area. Sections 90.273 through 90.281 address the specific rules applicable to these bands. Use of these bands is also subject to the general technical standards and application procedures contained in other subparts of part 90. The technical standards applicable in this band are the same as those contained in subpart I of part 90 for the 450–470 MHz band. Private land mobile use of these frequencies is subject to accepting any interference from Federal Government radiolocation operations.

(a) The following tables list frequencies available for assignment in the public safety, business or industrial/land transportation pools as indicated. In the tables, the public safety pool is denoted as “PS”, the business pool as “B”, and the industrial/land transportation pool as “I/LT.” The frequencies 422.19375 MHz through 424.99375 MHz are paired with frequencies 427.19375 MHz through 429.99375 MHz, respectively. Only the lower half of each frequency pair, available for base station operation, is listed in the tables. Corresponding mobile and control station frequencies are 5 MHz higher than the base station frequency. The frequencies 425.000 through 425.48125 are unpaired and are available for either single frequency dispatch or paging operations.